=> fil reg

FILE 'REGISTRY' ENTERED AT 13:50:03 ON 23 NOV 1998
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 20 NOV 98 HIGHEST RN 214595-33-2
DICTIONARY FILE UPDATES: 22 NOV 98 HIGHEST RN 214595-33-2

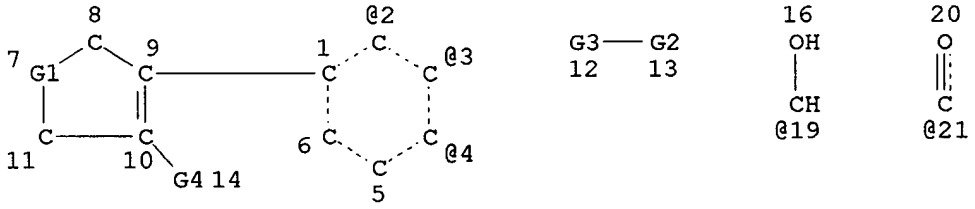
TSCA INFORMATION NOW CURRENT THROUGH JUNE 29, 1998

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Stereochemical name changes have been adopted and appear in CN's beginning 6/29/98. See the online news message for details.

=> d stat que l27

L25 STR



VAR G1=C/O/S
VAR G2=S/P
VAR G3=2/3/4
VAR G4=CH2/19/21/O/S/N
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE
L27 193 SEA FILE=REGISTRY SSS FUL L25

100.0% PROCESSED 33101 ITERATIONS 193 ANSWERS
SEARCH TIME: 00.00.04

=> d his l28-

(FILE 'REGISTRY' ENTERED AT 13:38:16 ON 23 NOV 1998)
SAV L27 ZINNA097/A

FILE 'HCAPLUS' ENTERED AT 13:44:48 ON 23 NOV 1998
L28 15 S L27

FILE 'REGISTRY' ENTERED AT 13:45:03 ON 23 NOV 1998

```
L29             1 S 39391-18-9
                  E COX/CN

     FILE 'HCAPLUS' ENTERED AT 13:45:22 ON 23 NOV 1998
L30         14835 S L29 OR COX OR CYCLOOXYGENASE OR CYCLO(L)OXYGENASE
L31             7 S L28 AND L30
L32             5 S COX? AND L28
L33             7 S L31,L32
L34             5 S L28 AND (BELLEY ? OR GAUTHIER ? OR GRIMM ? OR LEBLANC?
L35             6 S L28 AND MERCK?/CS,PA
L36             7 S L33-L35
L37             8 S L28 NOT L36
L38             2 S L37 AND (1 OR 63)/SC,SX
L39             9 S L36,L38
L40             6 S L37 NOT L39
                  SEL HIT RN L39

     FILE 'REGISTRY' ENTERED AT 13:48:50 ON 23 NOV 1998
L41           191 S E1-E191
L42           190 S L41 NOT L29
L43             3 S L27 NOT L42

     FILE 'REGISTRY' ENTERED AT 13:50:03 ON 23 NOV 1998

=> d ide can 129


L29  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 1998 ACS
RN   39391-18-9  REGISTRY
CN   Oxygenase, arachidonate cyclo- (9CI)  (CA INDEX NAME)
OTHER NAMES:
CN   Arachidonate cyclooxygenase
CN   Arachidonic acid cyclooxygenase
CN   Arachidonic cyclooxygenase
CN   Cyclooxygenase
CN   Fatty acid cyclooxygenase
CN   PGI2 cyclooxygenase
CN   Prostaglandin cyclooxygenase
CN   TXA2 cyclooxygenase
MF   Unspecified
CI   MAN
LC   STN Files:   AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, CA, CAPLUS,
       CEN, CHEMCATS, CIN, EMBASE, PROMT, TOXLIT, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            4745 REFERENCES IN FILE CA (1967 TO DATE)
              58 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
            4746 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE   1:  129:290053

REFERENCE   2:  129:289923

REFERENCE   3:  129:289136

REFERENCE   4:  129:288644

REFERENCE   5:  129:288599
```

REFERENCE 6: 129:288507

REFERENCE 7: 129:288477

REFERENCE 8: 129:288228

REFERENCE 9: 129:286012

REFERENCE 10: 129:285752

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 13:50:21 ON 23 NOV 1998
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1967 - 23 Nov 1998 VOL 129 ISS 22
FILE LAST UPDATED: 23 Nov 1998 (981123/ED)

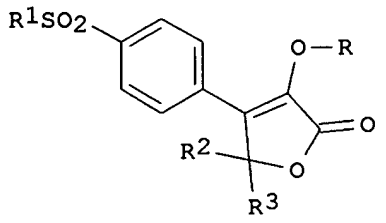
This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> d bib abs hitrn tot 139

L39 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1998:635753 HCAPLUS
DN 129:275831
TI Preparation of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors
IN **Leblanc, Yves**; **Roy, Patrick**; Leger, Serge; **Grimm, Erich**; Wang, Zhaoyin
PA **Merck Frosst Canada Inc., Can.**
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
PI WO 9841516 A1 19980924
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 98-CA225 19980312
PRAI US 97-40794 19970314
GB 97-7488 19970414
DT Patent
LA English
OS MARPAT 129:275831

GI



I

AB The title compds. [I; R = (un)substituted C1-12 alkyl, C2-10 alkenyl, C2-10 alkynyl, etc.; R1 = Me, NH2, NHC(O)CF3, NHMe; R2, R3 = H, C1-10 alkyl; R2R3 together with the carbon to which they are attached form a satd. C3-7 monocyclic ring], useful in the treatment of an inflammatory disease susceptible to treatment with an non-steroidal antiinflammatory agent, and for treating **cyclooxygenase** mediated diseases, were prepd. Thus, 6-step synthesis of I [R = CH(Me)CH:CH2; R1 = Me; R2 = R3 = Me] which showed IC50 of 0.05 .mu.M against **COX**-2 in CHO transfected cell lines, was described.

IT **39391-18-9**
RL: BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study)
(2; selective **COX**-2 inhibitors; prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors)

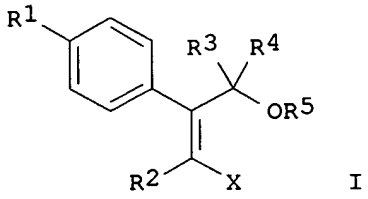
IT **213833-44-4P 213833-46-6P 213833-47-7P**
213833-50-2P 213833-56-8P 213833-58-0P
213833-61-5P
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors)

IT **189955-18-8P 213833-39-7P 213833-40-0P**
213833-41-1P 213833-42-2P 213833-43-3P
213833-45-5P 213833-48-8P 213833-49-9P
213833-51-3P 213833-52-4P 213833-53-5P
213833-54-6P 213833-55-7P 213833-57-9P
213833-59-1P 213833-60-4P 213833-62-6P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors)

IT **213833-67-1 213833-69-3**
RL: RCT (Reactant)
(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors)

IT **189955-89-3P 213833-64-8P 213833-65-9P**
213833-66-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as **COX**-2 inhibitors)

L39 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1998:534885 HCAPLUS
DN 129:161415
TI Preparation of alkylated styrenes as prodrugs to **cyclooxygenase**-2 inhibitors.
IN **Black, Cameron; Grimm, Erich;** Leger, Serge; Hughes, Greg; **Prasit, Petpiboon;** Wang, Zhaoyin
PA **Merck Frosst Canada, Inc., Can.**
SO U.S., 41 pp.
CODEN: USXXAM
PI US 5789413 A 19980804
AI US 97-786517 19970121
DT Patent
LA English
OS MARPAT 129:161415
GI



I

AB Title compds. [I; X = CH2OR6, COR7, CH2COMe, CH2CH2COR7; R1 = SO2Me, SO2NH2, SO2NHCOCF3, SONHMe, SONHNH2, SONHNHCOCF3; R2 = NR8R9, SR9, OR9, R9, alkenyl, alkynyl, (substituted) heterocycloalkyl, styryl, etc.; R3, R4 = alkyl, CH2OR8, CN, fluoroalkyl, (substituted) Ph, PhCH2, heteroaryl, heteroarylmethyl; R3R4C = 3-7 membered satd. monocyclic ring which may contain 1-2 of O, S, N; R5 = H, alkyl, COR10 ; R6 = H, alkyl, COR10; R7 = H, OH, amino, OR10; R8 = H, R9; R9 = alkyl, (substituted) Ph, naphthyl, heteroaryl, benzoheterocyclyl, etc.; R10 = (substituted) alkyl], were prepd. as antiinflammatories. Thus, N,N-dimethyl-2-(3-fluorophenyl)-4-methoxy-4-methyl-3-[4-(methylsulfonyl)phenyl]-2-(Z)-pentenamide (prepn. given) showed ED50 = 1.6 mg/kg orally in the rat paw edema assay.

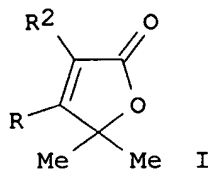
IT **39391-18-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2, inhibitors; prepn. of alkylated styrenes as prodrugs to **cox**-2 inhibitors)

IT **189954-13-0P 189954-14-1P 189954-15-2P**
189954-16-3P 189954-17-4P 189954-18-5P
189954-19-6P 189954-20-9P 189954-21-0P
189954-22-1P 189954-23-2P 189954-24-3P
189954-25-4P 189954-26-5P 189954-27-6P
189954-28-7P 189954-29-8P 189954-30-1P
189954-32-3P 189954-33-4P 189954-34-5P
189954-35-6P 189954-36-7P 189954-37-8P
189954-38-9P 189954-39-0P 189954-40-3P
189954-41-4P 189954-42-5P 189954-45-8P
189955-73-5P 189955-74-6P 189955-75-7P
189955-82-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(prepn. of alkylated styrenes as prodrugs to **cox**-2 inhibitors)

L39 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1998:348071 HCAPLUS
DN 129:95364
TI An efficient asymmetric synthesis of a potent **COX**-2 inhibitor L-784,512
AU Tan, Lushi; Chen, Cheng-Yi; Larsen, Robert D.; Verhoeven, Thomas R.; Reider, Paul J.
CS **Merck Research Laboratories, Department of Process Research, Rahway, NJ, 07065, USA**
SO Tetrahedron Lett. (1998), 39(23), 3961-3964
CODEN: TELEAY; ISSN: 0040-4039
PB Elsevier Science Ltd.
DT Journal
LA English
OS CASREACT 129:95364
AB An efficient enantioselective synthesis of L-784,512 featuring a Horner-Emmons reaction, a new one-pot trifluoromethylation, and the Sharpless asym. dihydroxylation is described.
IT **189955-09-7P**, L-784,512
RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. synthesis of **COX**-2 inhibitor L-784,512)

L39 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1997:805732 HCAPLUS
DN 128:61420
TI Preparation of 4-(4-methylsulfonylphenyl)-2-furanones as **cyclooxygenase**-2 inhibitors
IN Rossen, Kai; Volante, Ralph P.; Ho, Guo-Jie; Farr, Roger N.; Mathre, David J.
PA **Merck & Co., Inc., USA**; Rossen, Kai; Volante, Ralph P.; Ho, Guo-Jie; Farr, Roger N.; Mathre, David J.
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
PI WO 9745420 A1 19971204
DS W: AL, AM, AU, AZ, BB, BG, BR, BY, CA, CN, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 97-US9193 19970527
PRAI US 96-18644 19960531
GB 96-13110 19960621
US 96-28108 19961009
US 96-28109 19961009
GB 96-22831 19961101
GB 96-22816 19961101
DT Patent
LA English
OS MARPAT 128:61420
GI



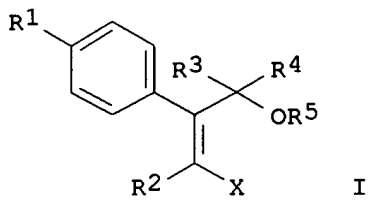
I

AB Title compds. [I; R = C6H4(SO2Me)-4][II; R2 = OR1 or (un)substituted Ph; R1 = alkyl, substituted Ph, -naphthyl] were prepd. Thus, PhSMe was acylated by Me2CHCOCl and the brominated product oxidized to give 4-(MeO2S)C6H4COCMe2Br which was esterified by HOCCH2OCHMe2 to give, after cyclization and dehydration steps, II (R2 = OCHMe2). Data for biol. activity of I were given.

IT **39391-18-9, Cyclooxygenase**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(2; mediated disorders; treatment; prepn. of 4-(4-methylsulfonylphenyl)-2-furanones as **cyclooxygenase**-2 inhibitors)

IT **189954-66-3P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 4-(4-methylsulfonylphenyl)-2-furanones as **cyclooxygenase**-2 inhibitors)

L39 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1997:533612 HCAPLUS
DN 127:220465
TI Preparation of alkylated styrenes as prodrugs to **cyclooxygenase**-2 inhibitors.
IN **Black, Cameron; Grimm, Erich**; Hughes, Greg; Leger, Serge; **Prasit, Petpiboon**; Wang, Zhaoyin
PA **Merck Frosst Canada Inc., Can.**; Black, Cameron; Grimm, Erich; Hughes, Greg; Leger, Serge; Prasit, Petpiboon; Wang, Zhaoyin
SO PCT Int. Appl., 125 pp.
CODEN: PIXXD2
PI WO 9728121 A1 19970807
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 97-CA58 19970129
PRAI US 96-10432 19960201
GB 96-5646 19960318
DT Patent
LA English
OS MARPAT 127:220465
GI



I

AB Title compds. [I; X = CH2OR6, COR7, CH2COMe, CH2CH2COR7; R1 = SO2Me, SO2NH2, SO2NHCOCF3, SONHMe, SONHNH2, SONHNHCOCF3; R2 = NR8R9, SR9, OR9, R9, alkenyl, alkynyl, (substituted) heterocyclylalkyl; R3, R4 = alkyl, CH2OR8, cyano, fluoroalkyl, (substituted) PhCH2, heteroaryl, heteroarylmethyl; R3R4 = atoms to form a (heteroatom-interrupted) satd. monocyclic 3-7 membered ring; R6 = H, alkyl, COR10; R7 = H, OH, NH2, OR10, NHR10, NR10R11; R8 = H, R9; R9 = alkyl, (substituted) Ph, naphthyl, heteroaryl, benzoheterocyclyl, benzocarbocyclyl, bicyclic heteroaryl; R10, R11 = alkyl, carboxyalkyl, aminoalkyl, etc.; R10R11N = 3-7 membered heterocyclyl], were prepd. Thus, 2-(3-fluorophenyl)-4-methoxy-4-methyl-3-(4-methylthio)phenyl-2-(Z)-penten-1-ol (prepn. given) was treated with MMPP in MeOH/CH2Cl2 to give 2-(3-fluorophenyl)-4-methoxy-4-methyl-3-(4-methylsulfonyl)phenyl-2-(Z)-penten-1-ol. The latter inhibited rat paw edema with ED50 = 1.6 mg/kg orally.

IT **39391-18-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(2-, inhibitors; prepn. of alkylated styrenes as prodrugs to **cyclooxygenase**-2 inhibitors)

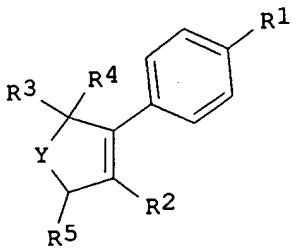
IT **189955-73-5P 189955-74-6P 189955-75-7P 189955-82-6P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of alkylated styrenes as prodrugs to **cyclooxygenase**-2 inhibitors)

IT **189954-13-0P 189954-14-1P 189954-15-2P 189954-16-3P 189954-17-4P 189954-18-5P 189954-19-6P 189954-20-9P 189954-21-0P 189954-22-1P 189954-23-2P 189954-24-3P 189954-25-4P 189954-26-5P 189954-27-6P 189954-28-7P 189954-29-8P 189954-30-1P 189954-32-3P 189954-33-4P 189954-34-5P 189954-35-6P 189954-36-7P 189954-37-8P 189954-38-9P 189954-39-0P 189954-40-3P 189954-41-4P 189954-42-5P 189954-45-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of alkylated styrenes as prodrugs to **cyclooxygenase**-2 inhibitors)

L39 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1997:425272 HCAPLUS
DN 127:34112
TI Preparation of 3,4-diaryl-2-hydroxy-2,5-dihydrofurans as prodrugs to **cyclooxygenase**-2 (**cox**-2) inhibitors and as non-steroidal anti-inflammatory agents
IN **Black, Cameron**; Leger, Serge; **Prasit, Petpiboon**; Wang, Zhaoyin; Hamel, Pierre; Han, Yongxin; Hughes, Gregory

PA **Merck Frosst Canada Inc., Can.**; Black, Cameron; Leger, Serge; Prasit, Petpiboon; Wang, Zhaoyin; Hamel, Pierre; Han, Yongxin; Hughes, Gregory

SO PCT Int. Appl., 213 pp.
CODEN: PIXXD2
PI WO 9716435 A1 19970509
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 96-CA717 19961029
PRAI US 95-8074 19951030
GB 96-2877 19960213
DT Patent
LA English
OS MARPAT 127:34112
GI



I

AB The invention encompasses the novel compd. of formula [I; Y = (un)substituted CH2, O, S, CO; R2 = SO2Me, (un)substituted SO2NH2, SO2NHCOCF3, SONHNH2, SONHNHCOCF3, P(O)MeNH2, P(O)Me2, C(S)NH2; R2 = NR10R11, SR11, OR11, R11, C1-10 alkenyl, C1-10 alkynyl, (un)substituted C3-10 cycloalkenyl; wherein R11 = C1-10 alkyl, C3-10 cycloalkyl, (un)substituted Ph, naphthyl, or heteroaryl, etc.; R3 = H, C1-10 alkyl, cyano, CH2CN, C1-6 fluoroalkyl, F, CH2OR8, CON(R8)2; R4 = H, C1-10 alkyl, C1-10 alkoxy, C1-10 alkylthio, OH, O2CR8, SH, SCOR8, OCO2R8, O CON(R8)2, SCON(R8)2, C3-10 cycloalkoxy or cycloalkylthio; or CR3R4 = 3- to 7-membered monocyclic ring optionally contg. 1 or 2 heteroatoms selected from O, S, or N; wherein R8 = H, C1-10 alkyl, C1-10 alkyl-CO2H, C1-10 aminoalkyl, (un)substituted Ph or CH2Ph, C3-10 cycloalkyl, C1-10 alkanoyl, (un)substituted benzoyl; R5 = OR17, SR18, NR17R18, S(O)R18, SO2 R18, SO2N(R17)2, OP(O)(OR16)2; wherein R16 = H, C1-6 alkyl, (un)substituted CH2Ph; R17 = H, R18; R18 = C1-10 alkyl, C1-10 alkyl-CO2H, C1-10 aminoalkyl, (un)substituted Ph or CH2Ph, C3-10 cycloalkyl, (CH2CH2O)nH (n = 1-6), C1-10 alkanoyl, (un)substituted benzoyl]. They are in vivo converted into the active lactone form, i.e. arylhydroxydihydrofuranone derivs. I (R5 = oxo; Y, R1 - R4 = same as above) with high inhibitory activity against **cyclooxygenase**-2 and/or a specificity for **cyclooxygenase**-2 over **cyclooxygenase**-1 and useful in the treatment of **cyclooxygenase**-2 mediated diseases, in particular inflammatory diseases. Thus, 3,4-difluorophenoxyacetic acid was cyclocondensed with 2-hydroxy-4'-

(methylsulfonyl)isobutyrophenone (prepn. given) using 1-cyclohexyl-3-(2-morpholinoethyl)carbodiimide metho-p-toluenesulfonate and 4-dimethylaminopyridine in CH2Cl2 at room temp. for 18 h to give 3-(3,4-difluorophenoxy)-5,5-dimethyl-4-(4-methylsulfonylphenyl)-5H-furan-2-one, which was reduced by (Me2CHCH2)2AlH in THF at room temp. for 30 min to give I (Y = O, R2 = 3,4-difluorophenoxy, R3 = R4 = Me, R5 = OH). The latter compd. showed ED50 of 0.09 mg/kg p.o. for inhibiting the carrageenan-induced paw edema in rats.

IT **39391-18-9, Cyclooxygenase**
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); MSC (Miscellaneous); BIOL (Biological study); PROC (Process)
(2; prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective **cyclooxygenase**-2 inhibitors)

IT **189954-13-0P 189954-14-1P 189954-15-2P**
189954-16-3P 189954-17-4P 189954-18-5P
189954-19-6P 189954-20-9P 189954-21-0P
189954-22-1P 189954-23-2P 189954-24-3P
189954-25-4P 189954-26-5P 189954-27-6P
189954-28-7P 189954-29-8P 189954-30-1P
189954-32-3P 189954-33-4P 189954-34-5P
189954-35-6P 189954-36-7P 189954-37-8P
189954-38-9P 189954-39-0P 189954-40-3P
189954-41-4P 189954-42-5P 189954-43-6P
189954-44-7P 189954-45-8P 189954-46-9P
189954-47-0P 189954-48-1P 189954-49-2P
189954-50-5P 189954-51-6P 189954-52-7P
189954-53-8P 189954-54-9P 189954-55-0P
189954-56-1P 189954-57-2P 189954-58-3P
189954-59-4P 189954-61-8P 189954-62-9P
189954-66-3P 189954-67-4P 189954-68-5P
189954-69-6P 189954-70-9P 189954-71-0P
189954-72-1P 189954-73-2P 189954-74-3P
189954-75-4P 189954-76-5P 189954-77-6P
189954-78-7P 189954-79-8P 189954-80-1P
189954-81-2P 189954-82-3P 189954-83-4P
189954-84-5P 189954-85-6P 189954-86-7P
189954-87-8P 189954-88-9P 189954-90-3P
189954-91-4P 189954-92-5P 189954-93-6P
189954-96-9P 189954-97-0P 189954-98-1P
189954-99-2P 189955-00-8P 189955-01-9P
189955-03-1P 189955-04-2P 189955-05-3P
189955-07-5P 189955-13-3P 189955-15-5P
189955-22-4P 189955-25-7P 189955-28-0P
189955-31-5P 189955-34-8P 189955-37-1P
189955-40-6P 189955-42-8P 189955-44-0P
189955-46-2P 189955-48-4P 189955-50-8P
189955-52-0P 189955-62-2P 189955-63-3P
189955-64-4P 189955-65-5P 189955-66-6P
189955-67-7P 189955-68-8P 189955-69-9P
189955-70-2P 189955-71-3P 189955-72-4P
189957-46-8P 189957-47-9P 190966-37-1P
190966-38-2P 190966-39-3P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of diarylhydroxydihydrofurans as prodrugs for

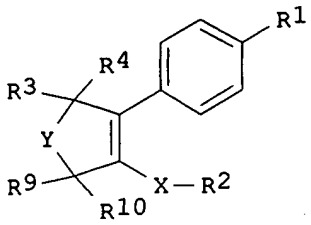
antiinflammatory diarylhydroxydihydrofuranones and selective **cyclooxygenase**-2 inhibitors)

IT **190966-65-5**
RL: RCT (Reactant)
(prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective **cyclooxygenase**-2 inhibitors)

IT **189955-73-5P 189955-74-6P 189955-75-7P**
189955-82-6P 189955-87-1P 189955-89-3P
189955-90-6P 189955-96-2P 189955-97-3P
189955-98-4P 189956-29-4P 189956-30-7P
189956-32-9P 190966-48-4P 190966-54-2P
190966-57-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective **cyclooxygenase**-2 inhibitors)

IT **190966-13-3P 190966-14-4P 190966-25-7P**
190966-31-5P 190966-32-6P 190966-33-7P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prodrug; prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective **cyclooxygenase**-2 inhibitors)

L39 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1997:384238 HCAPLUS
DN 127:5002
TI (Methylsulfonyl)phenyl-2-(5H)-furanones as **cox**-2 inhibitors
IN **Belley, Michel; Gauthier, Jacques Y.; Grimm, Erich; Leblanc, Yves; Li, Chung-Sing; Therien, Michel; Black, Cameron ; Lau, Cheuk-Kun; Prasit, Petpiboon;** et al.
PA Can.
SO PCT Int. Appl., 264 pp.
CODEN: PIXXD2
PI WO 9714691 A1 19970424
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 96-CA682 19961009
PRAI US 95-5371 19951013
GB 96-2939 19960213
US 96-11637 19960214
GB 96-5645 19960318
DT Patent
LA English
OS MARPAT 127:5002
GI



I

AB The title compds. [I; X = CH2, CHOH, CO, O, S, NR15 with the proviso that when R3 and R4 are other than both H, both C1-10 alkyl, or joined together with the carbon to which they are attached to form a satd. monocyclic carbon ring of 3, 4, 5, 6 or 7 atoms, then X is selected from CO, O, S, or NR15; Y = CR11R12, CO, O, S; R11, R12 = H, mono- or disubstituted Ph or mono- or disubstituted benzyl or mono- or disubstituted heteroaryl or mono- or disubstituted heteroarylmethyl wherein the substituents are H, halo, C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, etc.; R1 = SO2-Me, SO2-NR16R17, SO2-NH-CO-CF3, SONH-NH2, etc.; R2 = H, halo, C1-10 alkyl, mono- or disubstituted Ph or naphthyl wherein the substituents are selected from the group consisting of H, halo, C1-10 alkoxy, C1-10 alkylthio, etc.; R3 = H, C1-10 alkyl, CH2-OR7, CN, CH2CN, C1-6 fluoroalkyl, F, etc.; R4 = H, C1-10 alkyl, C1-10 alkoxy, C1-10 alkylthio, OH, etc.; R9, R10 = H, C1-7 alkyl, or R9R10 together with the carbon atom they are attached form a carbonyl or thiocarbonyl group; R15 = H, C1-10 alkyl, mono-, di-, or trisubstituted Ph or naphthyl, etc.; R16, R17 = H, C1-10 alkyl, alkanoic acid, alkyl amine, etc.] are prepd. Thus, 2-methyl-1-[4-(methylthio)phenyl]-1-propanone (prepd. from isobutyryl chloride and thioanisole) was treated with Aliquat 336 to give the 2-hydroxy deriv., which was oxidized to the sulfonyl compd. with Oxone, which was reacted with 3,4-difluorophenoxyacetic acid to give I [R1 = SO2-Me, R2 = 3,4-difluorophenyl, R3 = R4 = Me, R9R10 = O, X = Y = O]. In a red paw edema assay (using rats) for its antiinflammatory potency, this had ED50 of 0.14 mg/Kg. The invention also describes pharmaceutical compns. comprising I for treatment of **cyclooxygenase**-2 mediated diseases.

IT **189954-31-2P**
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
((methylsulfonyl)phenyl(5H)-furanones as **cox**-2 inhibitors)

IT **189954-13-0P 189954-14-1P 189954-15-2P**
189954-16-3P 189954-17-4P 189954-18-5P
189954-19-6P 189954-20-9P 189954-21-0P
189954-22-1P 189954-23-2P 189954-24-3P
189954-25-4P 189954-26-5P 189954-27-6P
189954-28-7P 189954-29-8P 189954-30-1P
189954-32-3P 189954-33-4P 189954-34-5P
189954-35-6P 189954-36-7P 189954-37-8P
189954-38-9P 189954-39-0P 189954-40-3P
189954-41-4P 189954-42-5P 189954-43-6P
189954-44-7P 189954-45-8P 189954-46-9P
189954-47-0P 189954-48-1P 189954-49-2P
189954-50-5P 189954-51-6P 189954-52-7P
189954-53-8P 189954-54-9P 189954-55-0P

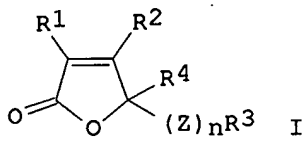
189954-56-1P 189954-57-2P 189954-58-3P
189954-59-4P 189954-61-8P 189954-62-9P
189954-63-0P 189954-64-1P 189954-65-2P
189954-66-3P 189954-67-4P 189954-68-5P
189954-69-6P 189954-70-9P 189954-71-0P
189954-72-1P 189954-73-2P 189954-74-3P
189954-75-4P 189954-76-5P 189954-77-6P
189954-78-7P 189954-79-8P 189954-80-1P
189954-81-2P 189954-82-3P 189954-83-4P
189954-84-5P 189954-85-6P 189954-86-7P
189954-87-8P 189954-88-9P 189954-89-0P
189954-90-3P 189954-91-4P 189954-92-5P
189954-93-6P 189954-94-7P 189954-95-8P
189954-96-9P 189954-97-0P 189954-98-1P
189954-99-2P 189955-00-8P 189955-01-9P
189955-02-0P 189955-03-1P 189955-04-2P
189955-05-3P 189955-07-5P 189955-09-7P
189955-13-3P 189955-15-5P 189955-18-8P
189955-22-4P 189955-25-7P 189955-28-0P
189955-31-5P 189955-34-8P 189955-37-1P
189955-40-6P 189955-42-8P 189955-44-0P
189955-46-2P 189955-48-4P 189955-50-8P
189955-52-0P 189955-54-2P 189955-56-4P
189955-58-6P 189955-60-0P 189955-62-2P
189955-63-3P 189955-64-4P 189955-65-5P
189955-66-6P 189955-67-7P 189955-68-8P
189955-69-9P 189955-70-2P 189955-71-3P
189955-72-4P 189957-46-8P 189957-47-9P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
((methylsulfonyl)phenyl(5H)-furanones as **cox**-2 inhibitors)

IT **189955-73-5P 189955-74-6P 189955-75-7P**
189955-82-6P 189955-87-1P 189955-89-3P
189955-90-6P 189955-96-2P 189955-97-3P
189955-98-4P 189956-29-4P 189956-30-7P
189956-32-9P 189956-36-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
((methylsulfonyl)phenyl(5H)-furanones as **cox**-2 inhibitors)

IT **39391-18-9, Cyclooxygenase**
RL: BPR (Biological process); BIOL (Biological study); PROC (Process)
(2; (methylsulfonyl)phenyl(5H)-furanones as **cox**-2 inhibitors)

L39 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1986:207131 HCAPLUS
DN 104:207131
TI Furanone derivatives
PA Fujisawa Pharmaceutical Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
PI JP 60178879 A2 19850912 Showa
AI JP 85-6508 19850117
PRAI GB 84-1149 19840117
DT Patent
LA Japanese

GI



I

AB Furanones I (R1 = OH, alkoxy, aralkoxy; R2 = aryl, heterocyclyl, alkenyl; R3 = H, carboxy, thiocarboxy, etc.; R4 = H, alkyl; Z = alkylene; n = 0, 1) and their salts, useful as aldose reductase inhibitors (data given), were prepd. Thus, stirring 5.3 g Me 2-oxo-3-(2-naphthyl)propionate with 6 g Et 3-formylpropionate in DMF in the presence of diazabicycloundecene at 0.degree. for 2 h gave 4.8 g I (R1 = OH, R2 = 2-naphthyl, R3 = CO2Et, R4 = H, Z = CH2CH2, n = 1).

IT **100474-21-3P 100474-70-2P 100474-71-3P**
100475-17-0P
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as aldose reductase inhibitor)

L39 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 1998 ACS
AN 1973:71892 HCAPLUS
DN 78:71892
TI Antiarthritic pulvinic acid esters
IN Sutton, Blaine Mote; Walz, Donald Thomas; Wilson, James William
PA Smith Kline and French Laboratories
SO Fr. Demande, 22 pp.
CODEN: FRXXBL
PI FR 2116455 19720818
PRAI US 70-94974 19701203
DT Patent
LA French
GI For diagram(s), see printed CA Issue.
AB Pulvinates I (R and R1 = H, 3-Cl, 4-Cl, 3,4-Cl2, 4-Me, 2-OMe, 3-OMe, 4-OMe, 3,4-(OMe)2, 3,4,5-(OMe)3, 4-SMe, 4-SOMe, 4-OEt, 4-OBu, 3,4-OCH2O, 4-Br, 4-F, 3-CF3) were prepd. by treating RC6H4CH2N with EtO2CCO2Et to give RC6H4CH(CN)COCO2Et, which with R1C6H4CH2CN gave RC6H4CH(CN)COCOCH(CN)C6H4R1 (II). Acid cyclization of II with Ac2O gave the pulvinic acid lactone, which on acid hydrolysis with MeOH-HCl gave I. I at 1-50 mg/kg inhibited Mycobacterium butyricum-induced polyarthritis in rats.
IT **38746-76-8P 38746-78-0P 38746-79-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

=> d his 144-

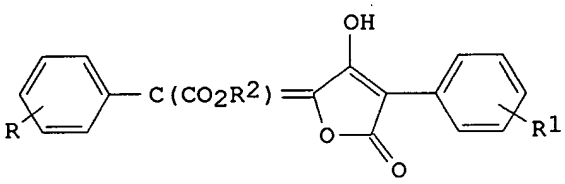
(FILE 'REGISTRY' ENTERED AT 13:50:03 ON 23 NOV 1998)

FILE 'HCAPLUS' ENTERED AT 13:50:21 ON 23 NOV 1998

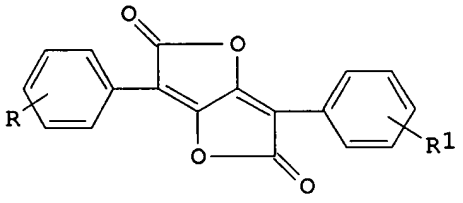
```
L44          11 S L42
L45           2 S L44 NOT L39

=> d bib abs hitrn tot
```

L45 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 1998 ACS
AN 1976:446362 HCAPLUS
DN 85:46362
TI Ester derivatives of pulvinic acid
IN Sutton, Blaine M.; Walz, Donald T.; Wilson, James W.
PA Smithkline Corp., USA
SO U.S., 7 pp. Division of U.S. 3,826,839.
CODEN: USXXAM
PI US 3944571 19760316
AI US 70-94974 19701203
DT Patent
LA English
GI



I



II

AB About 20 pulvinates I (R, R1 = H, p-Cl, m-Cl, p-MeO, p-F, m-MeO, p-EtO, etc.; R2 = Me, Et) were prepd. by treating RC6H4CN with EtO2CCO2Et and condensation of RC6H4CH(CN)COCO2Et with R1C6H4CN to give RC6H4CH(CN)COCOCH(CN)C6H4R1, which was cyclized and the lactone II hydrolyzed. At 10-50 mg/kg I inhibited adjuvant induced anthritis in rats.

IT **38746-76-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and oxidn. of)

IT **38746-78-0P 38746-79-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

L45 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 1998 ACS
AN 1972:514069 HCAPLUS
DN 77:114069
TI Esters of 3,4-dihydroxy-2,5-diphenyl-2,4-hexadiene-1,6-dioic acid .gamma.-lactone
IN Sutton, Blaine Mote; Walz, Donald Thomas; Wilson, James William
PA Smith Kline and French Laboratories

SO Ger. Offen., 32 pp.
CODEN: GWXXBX
PI DE 2160119 19720608
AI DE 71-2160119 19711203
DT Patent
LA German
GI For diagram(s), see printed CA Issue.
AB Fifteen title compds. (I; R = Me or Et; R1, R2 = H, 4-Cl, 3-Cl, 4-MeO, 4-Me, 4,3-FCl, 4-F, 3-F3C, 3,4,5-(MeO)3, 3,4-(MeO)2, or 3-MeO), useful as antiarthritic drugs, were prepd. by reaction of R1C6H4CH2CN with di-Et oxalate via R1C6H4CH(CN)COCO2Et, its reaction with R2C6H4CH2CN via R1C6H4CH(CN)COCOCH(CN)C6H4R2 followed by lactonization and partial lactone cleavage. Thus, PhCH2CN and EtO2CCO2Et were added to MeONa-Me-OH, and the mixt. was refluxed 2 hr to give PhCH(CN)COCO2Et, which was similarly treated with further PhCH2CN to give PhCH(CN)COCOCHPhCN (II). Refluxing II with AcOH-H2SO4 gave the monolactone, which on refluxing with Ac2O gave the dilactone (III). Refluxing III in MeOH in the presence of HCl gave I (R = Me, R1 = R2 = H). Using EtOH instead of MeOH gave the Et ester.
IT **38746-76-8P 38746-78-0P 38746-79-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:51:47 ON 23 NOV 1998
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 20 NOV 98 HIGHEST RN 214595-33-2
DICTIONARY FILE UPDATES: 22 NOV 98 HIGHEST RN 214595-33-2

TSCA INFORMATION NOW CURRENT THROUGH JUNE 29, 1998

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Stereochemical name changes have been adopted and appear in CN's beginning 6/29/98. See the online news message for details.

=> d reg tot l42

1 RN **213833-69-3** REGISTRY
2 RN **213833-67-1** REGISTRY
3 RN **213833-66-0** REGISTRY
4 RN **213833-65-9** REGISTRY
5 RN **213833-64-8** REGISTRY
6 RN **213833-62-6** REGISTRY
7 RN **213833-61-5** REGISTRY
8 RN **213833-60-4** REGISTRY
9 RN **213833-59-1** REGISTRY
10 RN **213833-58-0** REGISTRY
11 RN **213833-57-9** REGISTRY
12 RN **213833-56-8** REGISTRY
13 RN **213833-55-7** REGISTRY
14 RN **213833-54-6** REGISTRY
15 RN **213833-53-5** REGISTRY

16	RN	**213833-52-4**	REGISTRY
17	RN	**213833-51-3**	REGISTRY
18	RN	**213833-50-2**	REGISTRY
19	RN	**213833-49-9**	REGISTRY
20	RN	**213833-48-8**	REGISTRY
21	RN	**213833-47-7**	REGISTRY
22	RN	**213833-46-6**	REGISTRY
23	RN	**213833-45-5**	REGISTRY
24	RN	**213833-44-4**	REGISTRY
25	RN	**213833-43-3**	REGISTRY
26	RN	**213833-42-2**	REGISTRY
27	RN	**213833-41-1**	REGISTRY
28	RN	**213833-40-0**	REGISTRY
29	RN	**213833-39-7**	REGISTRY
30	RN	**190966-65-5**	REGISTRY
31	RN	**190966-57-5**	REGISTRY
32	RN	**190966-54-2**	REGISTRY
33	RN	**190966-48-4**	REGISTRY
34	RN	**190966-39-3**	REGISTRY
35	RN	**190966-38-2**	REGISTRY
36	RN	**190966-37-1**	REGISTRY
37	RN	**190966-33-7**	REGISTRY
38	RN	**190966-32-6**	REGISTRY
39	RN	**190966-31-5**	REGISTRY
40	RN	**190966-25-7**	REGISTRY
41	RN	**190966-14-4**	REGISTRY
42	RN	**190966-13-3**	REGISTRY
43	RN	**189957-47-9**	REGISTRY
44	RN	**189957-46-8**	REGISTRY
45	RN	**189956-36-3**	REGISTRY
46	RN	**189956-32-9**	REGISTRY
47	RN	**189956-30-7**	REGISTRY
48	RN	**189956-29-4**	REGISTRY
49	RN	**189955-98-4**	REGISTRY
50	RN	**189955-97-3**	REGISTRY
51	RN	**189955-96-2**	REGISTRY
52	RN	**189955-90-6**	REGISTRY
53	RN	**189955-89-3**	REGISTRY
54	RN	**189955-87-1**	REGISTRY
55	RN	**189955-82-6**	REGISTRY
56	RN	**189955-75-7**	REGISTRY
57	RN	**189955-74-6**	REGISTRY
58	RN	**189955-73-5**	REGISTRY
59	RN	**189955-72-4**	REGISTRY
60	RN	**189955-71-3**	REGISTRY
61	RN	**189955-70-2**	REGISTRY
62	RN	**189955-69-9**	REGISTRY
63	RN	**189955-68-8**	REGISTRY
64	RN	**189955-67-7**	REGISTRY
65	RN	**189955-66-6**	REGISTRY
66	RN	**189955-65-5**	REGISTRY
67	RN	**189955-64-4**	REGISTRY
68	RN	**189955-63-3**	REGISTRY
69	RN	**189955-62-2**	REGISTRY
70	RN	**189955-60-0**	REGISTRY
71	RN	**189955-58-6**	REGISTRY
72	RN	**189955-56-4**	REGISTRY
73	RN	**189955-54-2**	REGISTRY
74	RN	**189955-52-0**	REGISTRY

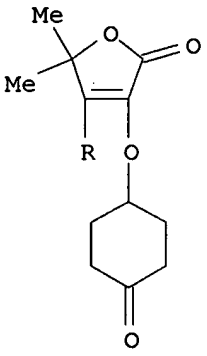
75	RN	**189955-50-8**	REGISTRY
76	RN	**189955-48-4**	REGISTRY
77	RN	**189955-46-2**	REGISTRY
78	RN	**189955-44-0**	REGISTRY
79	RN	**189955-42-8**	REGISTRY
80	RN	**189955-40-6**	REGISTRY
81	RN	**189955-37-1**	REGISTRY
82	RN	**189955-34-8**	REGISTRY
83	RN	**189955-31-5**	REGISTRY
84	RN	**189955-28-0**	REGISTRY
85	RN	**189955-25-7**	REGISTRY
86	RN	**189955-22-4**	REGISTRY
87	RN	**189955-18-8**	REGISTRY
88	RN	**189955-15-5**	REGISTRY
89	RN	**189955-13-3**	REGISTRY
90	RN	**189955-09-7**	REGISTRY
91	RN	**189955-07-5**	REGISTRY
92	RN	**189955-05-3**	REGISTRY
93	RN	**189955-04-2**	REGISTRY
94	RN	**189955-03-1**	REGISTRY
95	RN	**189955-02-0**	REGISTRY
96	RN	**189955-01-9**	REGISTRY
97	RN	**189955-00-8**	REGISTRY
98	RN	**189954-99-2**	REGISTRY
99	RN	**189954-98-1**	REGISTRY
100	RN	**189954-97-0**	REGISTRY
101	RN	**189954-96-9**	REGISTRY
102	RN	**189954-95-8**	REGISTRY
103	RN	**189954-94-7**	REGISTRY
104	RN	**189954-93-6**	REGISTRY
105	RN	**189954-92-5**	REGISTRY
106	RN	**189954-91-4**	REGISTRY
107	RN	**189954-90-3**	REGISTRY
108	RN	**189954-89-0**	REGISTRY
109	RN	**189954-88-9**	REGISTRY
110	RN	**189954-87-8**	REGISTRY
111	RN	**189954-86-7**	REGISTRY
112	RN	**189954-85-6**	REGISTRY
113	RN	**189954-84-5**	REGISTRY
114	RN	**189954-83-4**	REGISTRY
115	RN	**189954-82-3**	REGISTRY
116	RN	**189954-81-2**	REGISTRY
117	RN	**189954-80-1**	REGISTRY
118	RN	**189954-79-8**	REGISTRY
119	RN	**189954-78-7**	REGISTRY
120	RN	**189954-77-6**	REGISTRY
121	RN	**189954-76-5**	REGISTRY
122	RN	**189954-75-4**	REGISTRY
123	RN	**189954-74-3**	REGISTRY
124	RN	**189954-73-2**	REGISTRY
125	RN	**189954-72-1**	REGISTRY
126	RN	**189954-71-0**	REGISTRY
127	RN	**189954-70-9**	REGISTRY
128	RN	**189954-69-6**	REGISTRY
129	RN	**189954-68-5**	REGISTRY
130	RN	**189954-67-4**	REGISTRY
131	RN	**189954-66-3**	REGISTRY
132	RN	**189954-65-2**	REGISTRY
133	RN	**189954-64-1**	REGISTRY

134	RN	189954-63-0	REGISTRY
135	RN	189954-62-9	REGISTRY
136	RN	189954-61-8	REGISTRY
137	RN	189954-59-4	REGISTRY
138	RN	189954-58-3	REGISTRY
139	RN	189954-57-2	REGISTRY
140	RN	189954-56-1	REGISTRY
141	RN	189954-55-0	REGISTRY
142	RN	189954-54-9	REGISTRY
143	RN	189954-53-8	REGISTRY
144	RN	189954-52-7	REGISTRY
145	RN	189954-51-6	REGISTRY
146	RN	189954-50-5	REGISTRY
147	RN	189954-49-2	REGISTRY
148	RN	189954-48-1	REGISTRY
149	RN	189954-47-0	REGISTRY
150	RN	189954-46-9	REGISTRY
151	RN	189954-45-8	REGISTRY
152	RN	189954-44-7	REGISTRY
153	RN	189954-43-6	REGISTRY
154	RN	189954-42-5	REGISTRY
155	RN	189954-41-4	REGISTRY
156	RN	189954-40-3	REGISTRY
157	RN	189954-39-0	REGISTRY
158	RN	189954-38-9	REGISTRY
159	RN	189954-37-8	REGISTRY
160	RN	189954-36-7	REGISTRY
161	RN	189954-35-6	REGISTRY
162	RN	189954-34-5	REGISTRY
163	RN	189954-33-4	REGISTRY
164	RN	189954-32-3	REGISTRY
165	RN	189954-31-2	REGISTRY
166	RN	189954-30-1	REGISTRY
167	RN	189954-29-8	REGISTRY
168	RN	189954-28-7	REGISTRY
169	RN	189954-27-6	REGISTRY
170	RN	189954-26-5	REGISTRY
171	RN	189954-25-4	REGISTRY
172	RN	189954-24-3	REGISTRY
173	RN	189954-23-2	REGISTRY
174	RN	189954-22-1	REGISTRY
175	RN	189954-21-0	REGISTRY
176	RN	189954-20-9	REGISTRY
177	RN	189954-19-6	REGISTRY
178	RN	189954-18-5	REGISTRY
179	RN	189954-17-4	REGISTRY
180	RN	189954-16-3	REGISTRY
181	RN	189954-15-2	REGISTRY
182	RN	189954-14-1	REGISTRY
183	RN	189954-13-0	REGISTRY
184	RN	100475-17-0	REGISTRY
185	RN	100474-71-3	REGISTRY
186	RN	100474-70-2	REGISTRY
187	RN	100474-21-3	REGISTRY
188	RN	38746-79-1	REGISTRY
189	RN	38746-78-0	REGISTRY
190	RN	38746-76-8	REGISTRY

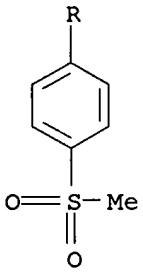
=> d 142 ide can 1 15 30 38 43 60 85 100 125 150 175 184 186 188-190

L42 ANSWER 1 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **213833-69-3** REGISTRY
CN 2(5H)-Furanone, 5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-3-[(4-oxocyclohexyl)oxy]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C19 H22 O6 S
SR CA
LC STN Files: CA, CAPLUS

PAGE 1-A



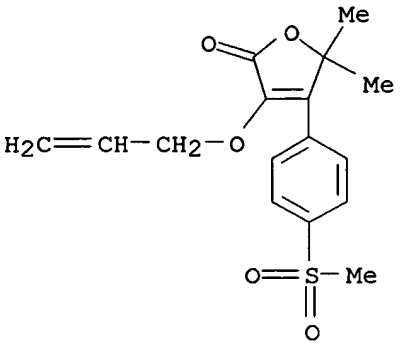
PAGE 2-A



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:275831

L42 ANSWER 15 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **213833-53-5** REGISTRY
CN 2(5H)-Furanone, 5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-3-(2-propenyloxy)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H18 O5 S
SR CA
LC STN Files: CA, CAPLUS

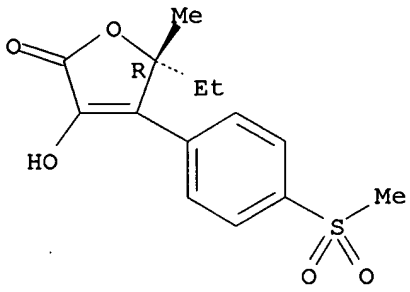


1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:275831

L42 ANSWER 30 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **190966-65-5** REGISTRY
CN 2(5H)-Furanone, 5-ethyl-3-hydroxy-5-methyl-4-[4-(methylsulfonyl)phenyl]-, (R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C14 H16 O5 S
SR CA
LC STN Files: CA, CAPLUS

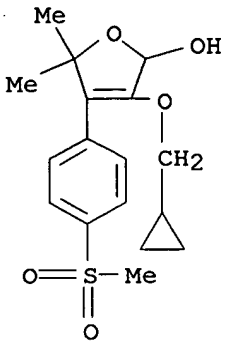
Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

L42 ANSWER 38 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **190966-32-6** REGISTRY
CN 2-Furanol, 3-(cyclopropylmethoxy)-2,5-dihydro-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H22 O5 S
SR CA
LC STN Files: CA, CAPLUS

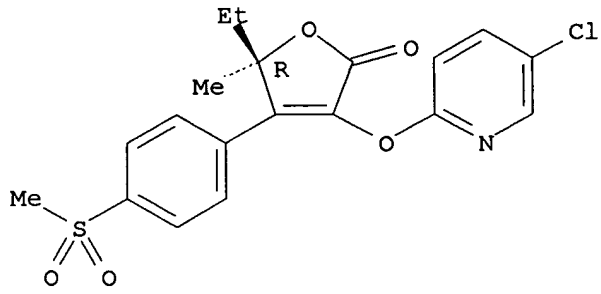


1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

L42 ANSWER 43 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189957-47-9** REGISTRY
CN 2(5H)-Furanone, 3-[(5-chloro-2-pyridinyl)oxy]-5-ethyl-5-methyl-4-[4-(methylsulfonyl)phenyl]-, (R)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C19 H18 Cl N O5 S
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

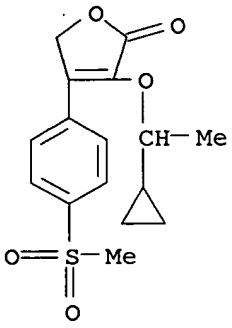


2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 60 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189955-71-3** REGISTRY
CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-4-[4-(methylsulfonyl)phenyl]-(9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C16 H18 O5 S
SR CA
LC STN Files: CA, CAPLUS

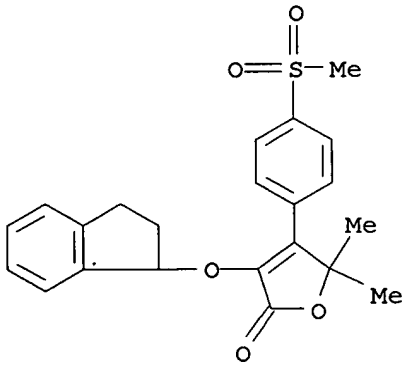


2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 85 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189955-25-7** REGISTRY
CN 2(5H)-Furanone, 3-[(2,3-dihydro-1H-inden-1-yl)oxy]-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C22 H22 O5 S
SR CA
LC STN Files: CA, CAPLUS



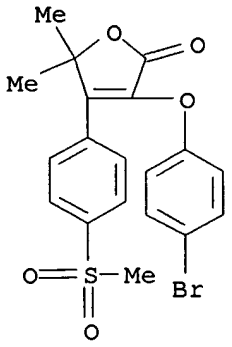
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 100 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189954-97-0** REGISTRY
CN 2(5H)-Furanone, 3-(4-bromophenoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD

MF C19 H17 Br O5 S
SR CA
LC STN Files: CA, CAPLUS

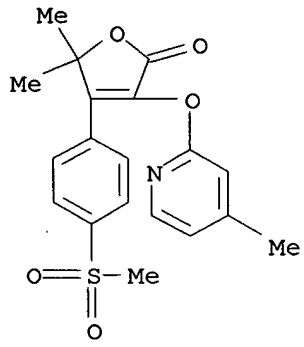


2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 125 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189954-72-1** REGISTRY
CN 2(5H)-Furanone, 5,5-dimethyl-3-[(4-methyl-2-pyridinyl)oxy]-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C19 H19 N O5 S
SR CA
LC STN Files: CA, CAPLUS



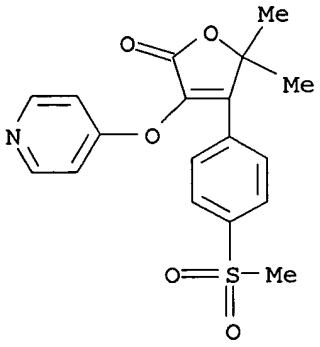
2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 150 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189954-46-9** REGISTRY

CN 2(5H)-Furanone, 5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-3-(4-pyridinyloxy)- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C18 H17 N O5 S
SR CA
LC STN Files: CA, CAPLUS

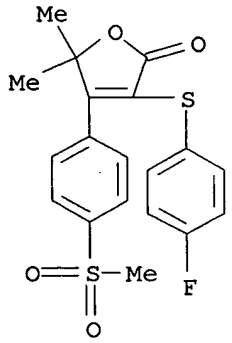


2 REFERENCES IN FILE CA (1967 TO DATE)
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 127:34112

REFERENCE 2: 127:5002

L42 ANSWER 175 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **189954-21-0** REGISTRY
CN 2(5H)-Furanone, 3-[(4-fluorophenyl)thio]-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C19 H17 F O4 S2
SR CA
LC STN Files: CA, CAPLUS, USPATFULL



4 REFERENCES IN FILE CA (1967 TO DATE)
4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

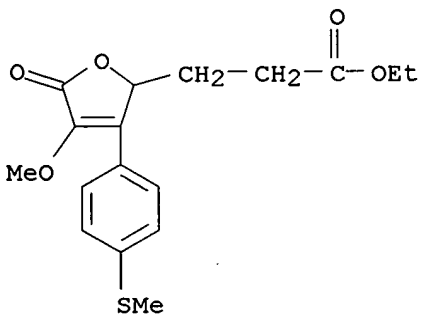
REFERENCE 1: 129:161415

REFERENCE 2: 127:220465

REFERENCE 3: 127:34112

REFERENCE 4: 127:5002

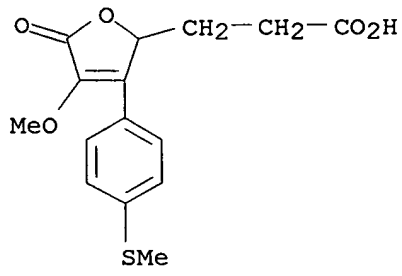
L42 ANSWER 184 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **100475-17-0** REGISTRY
CN 2-Furanpropanoic acid, 2,5-dihydro-4-methoxy-3-[4-(methylthio)phenyl]-5-oxo-, ethyl ester (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C17 H20 O5 S
SR CA
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 104:207131

L42 ANSWER 186 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **100474-70-2** REGISTRY
CN 2-Furanpropanoic acid, 2,5-dihydro-4-methoxy-3-[4-(methylthio)phenyl]-5-oxo- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C15 H16 O5 S
SR CA
LC STN Files: CA, CAPLUS

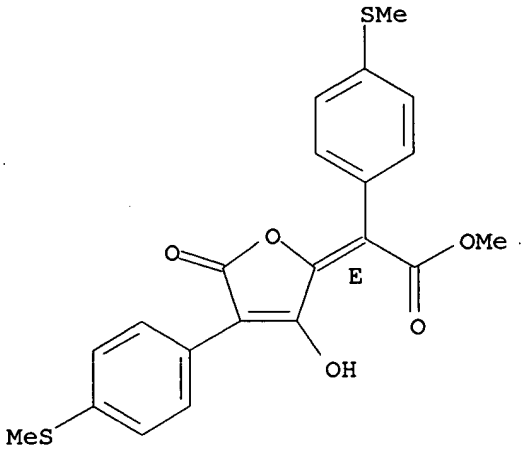


1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 104:207131

L42 ANSWER 188 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **38746-79-1** REGISTRY
CN Benzeneacetic acid, .alpha.-[3-hydroxy[4-(methylthio)phenyl]-5-oxo-2(5H)-furanylidene]-4-(methylthio)-, methyl ester, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C21 H18 O5 S2
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

Double bond geometry as shown.



3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

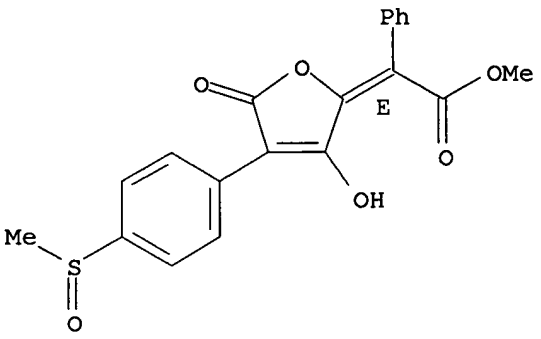
REFERENCE 1: 85:46362

REFERENCE 2: 78:71892

REFERENCE 3: 77:114069

L42 ANSWER 189 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **38746-78-0** REGISTRY
CN Benzeneacetic acid, .alpha.-[3-hydroxy-[4-(methylsulfinyl)phenyl]-5-oxo-2(5H)-furanylidene]-, methyl ester, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H16 O6 S
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

Double bond geometry as shown.



3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

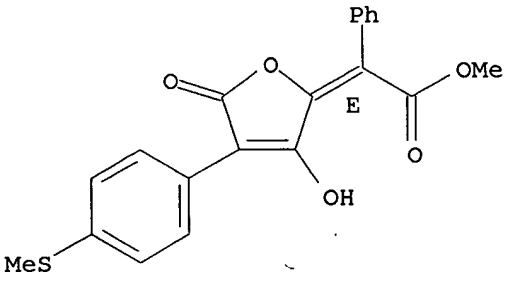
REFERENCE 1: 85:46362

REFERENCE 2: 78:71892

REFERENCE 3: 77:114069

L42 ANSWER 190 OF 190 REGISTRY COPYRIGHT 1998 ACS
RN **38746-76-8** REGISTRY
CN Benzeneacetic acid, .alpha.-[3-hydroxy-4-[4-(methylthio)phenyl]-5-oxo-2(5H)-furanylidene]-, methyl ester, (E)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H16 O5 S
LC STN Files: CA, CAPLUS, IFICDB, IFIPAT, IFIUDB, USPATFULL

Double bond geometry as shown.



3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 85:46362

REFERENCE 2: 78:71892

REFERENCE 3: 77:114069

=> fil reg

FILE 'REGISTRY' ENTERED AT 13:53:56 ON 23 NOV 1998
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

STRUCTURE FILE UPDATES: 20 NOV 98 HIGHEST RN 214595-33-2
DICTIONARY FILE UPDATES: 22 NOV 98 HIGHEST RN 214595-33-2

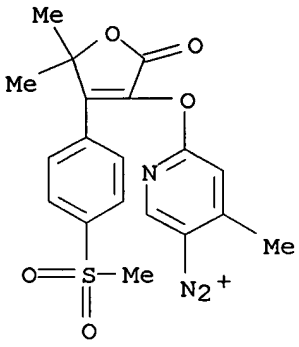
TSCA INFORMATION NOW CURRENT THROUGH JUNE 29, 1998

Please note that search-term pricing does apply when conducting SmartSELECT searches.

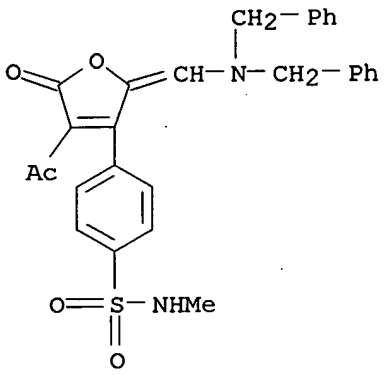
Stereochemical name changes have been adopted and appear in CN's beginning 6/29/98. See the online news message for details.

=> d l43 ide can tot

L43 ANSWER 1 OF 3 REGISTRY COPYRIGHT 1998 ACS
RN 190966-53-1 REGISTRY
CN 3-Pyridinediazonium, 6-[[2,5-dihydro-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-2-oxo-3-furanyl]oxy]-4-methyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C19 H18 N3 O5 S
CI COM
SR CA



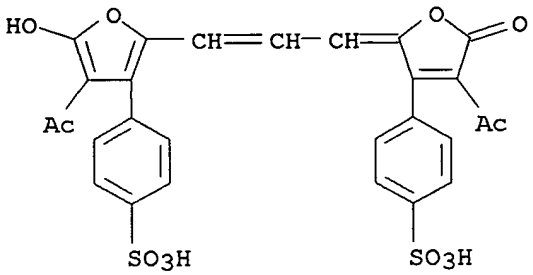
L43 ANSWER 2 OF 3 REGISTRY COPYRIGHT 1998 ACS
RN 178953-69-0 REGISTRY
CN Benzenesulfonamide, 4-[4-acetyl-2-[[bis(phenylmethyl)amino]methylene]-2,5-dihydro-5-oxo-3-furanyl]-N-methyl- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C28 H26 N2 O5 S
SR CA
LC STN Files: CA, CAPLUS



1 REFERENCES IN FILE CA (1967 TO DATE)
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 125:100020

L43 ANSWER 3 OF 3 REGISTRY COPYRIGHT 1998 ACS
RN 173436-27-6 REGISTRY
CN Benzenesulfonic acid, 4-[4-acetyl-2-[3-[4-acetyl-5-hydroxy-3-(4-sulfophenyl)-2-furanyl]-2-propenylidene]-2,5-dihydro-5-oxo-3-furanyl]-, tripotassium salt (9CI) (CA INDEX NAME)
DR 174641-14-6
MF C27 H20 O12 S2 . 3 K
SR CA
LC STN Files: CA, CAPLUS



●3 K

3 REFERENCES IN FILE CA (1967 TO DATE)
3 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 124:274389

REFERENCE 2: 124:215917

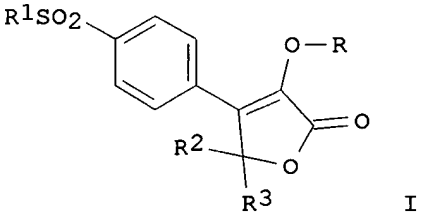
REFERENCE 3: 124:160221

s l4

L5 4 L4

=> dis l5 1-4 bib abs hitstr

L5 ANSWER 1 OF 4 CA COPYRIGHT 1998 ACS
AN 129:275831 CA
TI Preparation of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as COX-2 inhibitors
IN Leblanc, Yves; Roy, Patrick; Leger, Serge; Grimm, Erich; Wang, Zhaoyin
PA Merck Frosst Canada Inc., Can.
SO PCT Int. Appl., 69 pp.
CODEN: PIXXD2
PI WO 9841516 A1 19980924
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 98-CA225 19980312
PRAI US 97-40794 19970314
GB 97-7488 19970414
DT Patent
LA English
GI



I

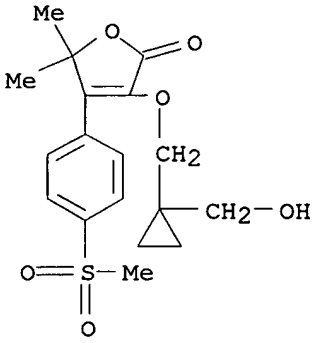
AB The title compds. [I; R = (un)substituted C1-12 alkyl, C2-10 alkenyl, C2-10 alkynyl, etc.; R1 = Me, NH2, NHC(O)CF3, NHMe; R2, R3 = H, C1-10 alkyl; R2R3 together with the carbon to which they are attached form a satd. C3-7 monocyclic ring], useful in the treatment of an inflammatory disease susceptible to treatment with an non-steroidal antiinflammatory agent, and for treating cyclooxygenase mediated diseases, were prepd. Thus, 6-step synthesis of I [R = CH(Me)CH:CH2; R1 = Me; R2 = R3 = Me] which showed IC50 of 0.05 .mu.M against COX-2 in CHO transfected cell lines, was described.

IT **213833-58-0P**
RL: BAC (Biological activity or effector, except adverse); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with

oxygen link as COX-2 inhibitors)

RN 213833-58-0 CA

CN 2(5H)-Furanone, 3-[[1-(hydroxymethyl)cyclopropyl]methoxy]-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



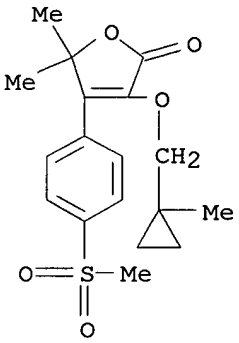
IT **189955-18-8P 213833-59-1P 213833-60-4P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 4-[4-(methylsulfonyl)phenyl]-2-(5H)-furanones with oxygen link as COX-2 inhibitors)

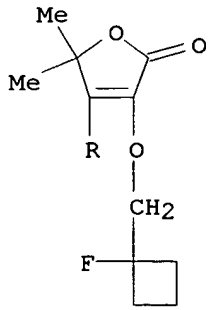
RN 189955-18-8 CA

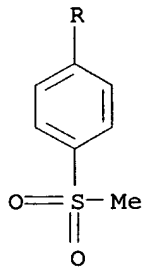
CN 2(5H)-Furanone, 5,5-dimethyl-3-[(1-methylcyclopropyl)methoxy]-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



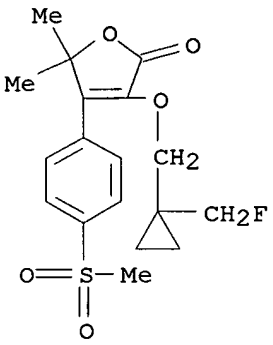
RN 213833-59-1 CA

CN 2(5H)-Furanone, 3-[(1-fluorocyclobutyl)methoxy]-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

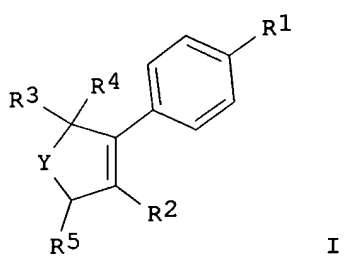




RN 213833-60-4 CA
CN 2(5H)-Furanone, 3-[[1-(fluoromethyl)cyclopropyl]methoxy]-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 2 OF 4 CA COPYRIGHT 1998 ACS
AN 127:34112 CA
TI Preparation of 3,4-diaryl-2-hydroxy-2,5-dihydrofurans as prodrugs to cyclooxygenase-2 (cox-2) inhibitors and as non-steroidal anti-inflammatory agents
IN Black, Cameron; Leger, Serge; Prasit, Petpiboon; Wang, Zhaoyin; Hamel, Pierre; Han, Yongxin; Hughes, Gregory
PA Merck Frosst Canada Inc., Can.; Black, Cameron; Leger, Serge; Prasit, Petpiboon; Wang, Zhaoyin; Hamel, Pierre; Han, Yongxin; Hughes, Gregory
SO PCT Int. Appl., 213 pp.
CODEN: PIXXD2
PI WO 9716435 A1 19970509
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 96-CA717 19961029
PRAI US 95-8074 19951030
GB 96-2877 19960213
DT Patent
LA English
OS MARPAT 127:34112
GI



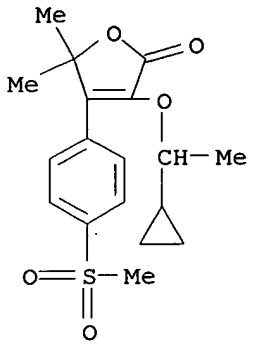
I

AB The invention encompasses the novel compd. of formula [I; Y = (un)substituted CH2, O, S, CO; R2 = SO2Me, (un)substituted SO2NH2, SO2NHCOCF3, SONHNH2, SONHNHCOCF3, P(O)MeNH2, P(O)Me2, C(S)NH2; R2 = NR10R11, SR11, OR11, R11, C1-10 alkenyl, C1-10 alkynyl, (un)substituted C3-10 cycloalkenyl; wherein R11 = C1-10 alkyl, C3-10 cycloalkyl, (un)substituted Ph, naphthyl, or heteroaryl, etc.; R3 = H, C1-10 alkyl, cyano, CH2CN, C1-6 fluoroalkyl, F, CH2OR8, CON(R8)2; R4 = H, C1-10 alkyl, C1-10 alkoxy, C1-10 alkylthio, OH, O2CR8, SH, SCOR8, OCO2R8, O CON(R8)2, SCON(R8)2, C3-10 cycloalkoxy or cycloalkylthio; or CR3R4 = 3- to 7-membered monocyclic ring optionally contg. 1 or 2 heteroatoms selected from O, S, or N; wherein R8 = H, C1-10 alkyl, C1-10 alkyl-CO2H, C1-10 aminoalkyl, (un)substituted Ph or CH2Ph, C3-10 cycloalkyl, C1-10 alkanoyl, (un)substituted benzoyl; R5 = OR17, SR18, NR17R18, S(O)R18, SO2 R18, SO2N(R17)2, OP(O)(OR16)2; wherein R16 = H, C1-6 alkyl, (un)substituted CH2Ph; R17 = H, R18; R18 = C1-10 alkyl, C1-10 alkyl-CO2H, C1-10 aminoalkyl, (un)substituted Ph or CH2Ph, C3-10 cycloalkyl, (CH2CH2O)nH (n = 1-6), C1-10 alkanoyl, (un)substituted benzoyl]. They are in vivo converted into the active lactone form, i.e. arylhydroxydihydrofuranone derivs. I (R5 = oxo; Y, R1 - R4 = same as above) with high inhibitory activity against cyclooxygenase-2 and/or a specificity for cyclooxygenase-2 over cyclooxygenase-1 and useful in the treatment of cyclooxygenase-2 mediated diseases, in particular inflammatory diseases. Thus, 3,4-difluorophenoxyacetic acid was cyclocondensed with 2-hydroxy-4'-(methylsulfonyl)isobutyrophenone (prepn. given) using 1-cyclohexyl-3-(2-morpholinoethyl)carbodiimide metho-p-toluenesulfonate and 4-dimethylaminopyridine in CH2Cl2 at room temp. for 18 h to give 3-(3,4-difluorophenoxy)-5,5-dimethyl-4-(4-methylsulfonylphenyl)-5H-furan-2-one, which was reduced by (Me2CHCH2)2AlH in THF at room temp. for 30 min to give I (Y = O, R2 = 3,4-difluorophenoxy, R3 = R4 = Me, R5 = OH). The latter compd. showed ED50 of 0.09 mg/kg p.o. for inhibiting the carrageenan-induced paw edema in rats.

IT **189954-87-8P 189954-92-5P 189954-96-9P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective cyclooxygenase-2 inhibitors)

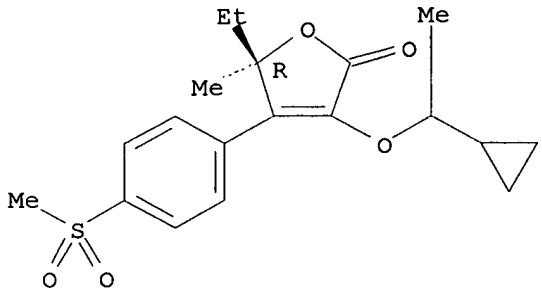
RN 189954-87-8 CA

CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

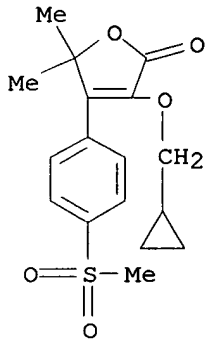


RN 189954-92-5 CA
CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5-ethyl-5-methyl-4-[4-(methylsulfonyl)phenyl]-, (5R)-[partial]- (9CI) (CA INDEX NAME)

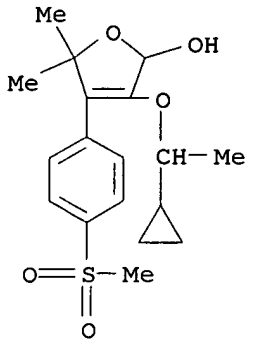
Absolute stereochemistry.



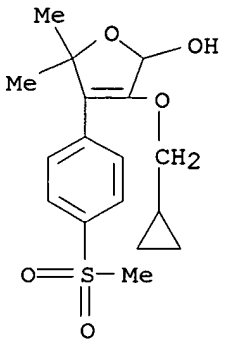
RN 189954-96-9 CA
CN 2(5H)-Furanone, 3-(cyclopropylmethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



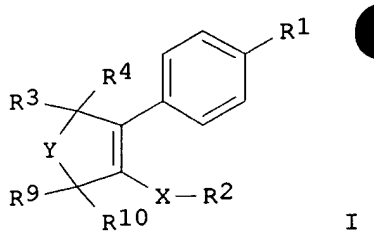
IT **190966-31-5P 190966-32-6P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prodrug; prepn. of diarylhydroxydihydrofurans as prodrugs for antiinflammatory diarylhydroxydihydrofuranones and selective cyclooxygenase-2 inhibitors)
RN 190966-31-5 CA
CN 2-Furanol, 3-(1-cyclopropylethoxy)-2,5-dihydro-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



RN 190966-32-6 CA
CN 2-Furanol, 3-(cyclopropylmethoxy)-2,5-dihydro-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 4 CA COPYRIGHT 1998 ACS
AN 127:5002 CA
TI (Methylsulfonyl)phenyl-2-(5H)-furanones as cox-2 inhibitors
IN Belley, Michel; Gauthier, Jacques Y.; Grimm, Erich; Leblanc, Yves; Li, Chung-Sing; Therien, Michel; Black, Cameron; Lau, Cheuk-Kun; Prasit, Petpiboon; et al.
PA Can.
SO PCT Int. Appl., 264 pp.
CODEN: PIXXD2
PI WO 9714691 A1 19970424
DS W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG
AI WO 96-CA682 19961009
PRAI US 95-5371 19951013
GB 96-2939 19960213
US 96-11637 19960214
GB 96-5645 19960318
DT Patent
LA English
OS MARPAT 127:5002
GI



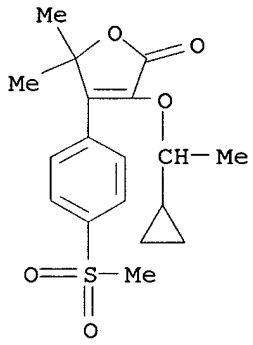
I

AB The title compds. [I; X = CH2, CHOH, CO, O, S, NR15 with the proviso that when R3 and R4 are other than both H, both C1-10 alkyl, or joined together with the carbon to which they are attached to form a satd. monocyclic carbon ring of 3, 4, 5, 6 or 7 atoms, then X is selected from CO, O, S, or NR15; Y = CR11R12, CO, O, S; R11, R12 = H, mono- or disubstituted Ph or mono- or disubstituted benzyl or mono- or disubstituted heteroaryl or mono- or disubstituted heteroarylmethyl wherein the substituents are H, halo, C1-6 alkyl, C1-6 alkoxy, C1-6 alkylthio, etc.; R1 = SO2-Me, SO2-NR16R17, SO2-NH-CO-CF3, SONH-NH2, etc.; R2 = H, halo, C1-10 alkyl, mono- or disubstituted Ph or naphthyl wherein the substituents are selected from the group consisting of H, halo, C1-10 alkoxy, C1-10 alkylthio, etc.; R3 = H, C1-10 alkyl, CH2-OR7, CN, CH2CN, C1-6 fluoroalkyl, F, etc.; R4 = H, C1-10 alkyl, C1-10 alkoxy, C1-10 alkylthio, OH, etc.; R9, R10 = H, C1-7 alkyl, or R9R10 together with the carbon atom they are attached form a carbonyl or thiocarbonyl group; R15 = H, C1-10 alkyl, mono-, di-, or trisubstituted Ph or naphthyl, etc.; R16, R17 = H, C1-10 alkyl, alkanoic acid, alkyl amine, etc.] are prepd. Thus, 2-methyl-1-[4-(methylthio)phenyl]-1-propanone (prepd. from isobutyryl chloride and thioanisole) was treated with Aliquat 336 to give the 2-hydroxy deriv., which was oxidized to the sulfonyl compd. with Oxone, which was reacted with 3,4-difluorophenoxyacetic acid to give I [R1 = SO2-Me, R2 = 3,4-difluorophenyl, R3 = R4 = Me, R9R10 = O, X = Y = O]. In a red paw edema assay (using rats) for its antiinflammatory potency, this had ED50 of 0.14 mg/Kg. The invention also describes pharmaceutical compns. comprising I for treatment of cyclooxygenase-2 mediated diseases.

IT **189954-87-8P 189954-92-5P 189954-94-7P 189954-95-8P 189954-96-9P 189955-18-8P**
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
((methylsulfonyl)phenyl(5H)-furanones as cox-2 inhibitors)

RN 189954-87-8 CA

CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

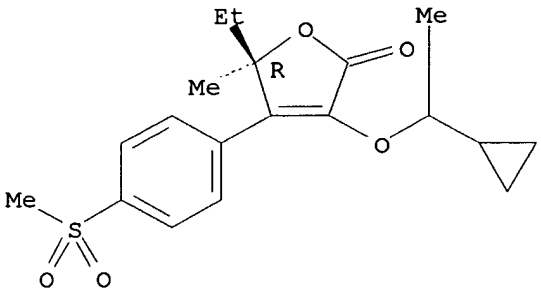


RN 189954-92-5 CA

CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5-ethyl-5-methyl-4-[4-

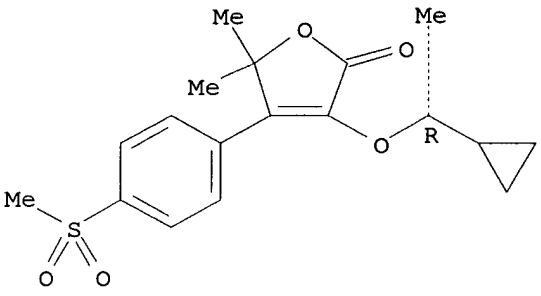
(methylsulfonyl)phenyl]-, (5R)-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



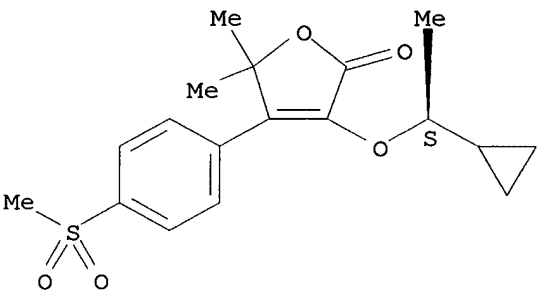
RN 189954-94-7 CA
CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

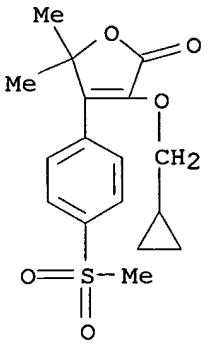


RN 189954-95-8 CA
CN 2(5H)-Furanone, 3-(1-cyclopropylethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]-, (S)- (9CI) (CA INDEX NAME)

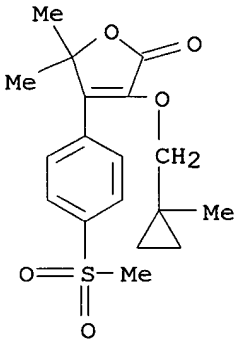
Absolute stereochemistry.



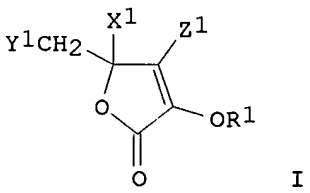
RN 189954-96-9 CA
CN 2(5H)-Furanone, 3-(cyclopropylmethoxy)-5,5-dimethyl-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



RN 189955-18-8 CA
CN 2(5H)-Furanone, 5,5-dimethyl-3-[(1-methylcyclopropyl)methoxy]-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 4 OF 4 CA COPYRIGHT 1998 ACS
AN 121:50090 CA
TI preparation, antitumor activity, and formulations of dihydrofuran compounds
IN Morishima, Hajime; Fujita, Kagari; Nakano, Masato; Atsumi, Shugo; Ookubo, Mitsuru; Kitagawa, Masatoshi; Matsumoto, Hidemi; Okuyama, Akira; Okabe, Takayoshi; Et, Al.
PA Banyu Pharma Co Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 56 pp.
CODEN: JKXXAF
PI JP 06100445 A2 19940412 Heisei
AI JP 93-186927 19930630
PRAI JP 92-203058 19920706
JP 92-229328 19920805
DT Patent
LA Japanese
OS MARPAT 121:50090
GI



I

AB Dihydrofuran compds. (I)[R1 = H, lower alkyl, lower alkenyl,

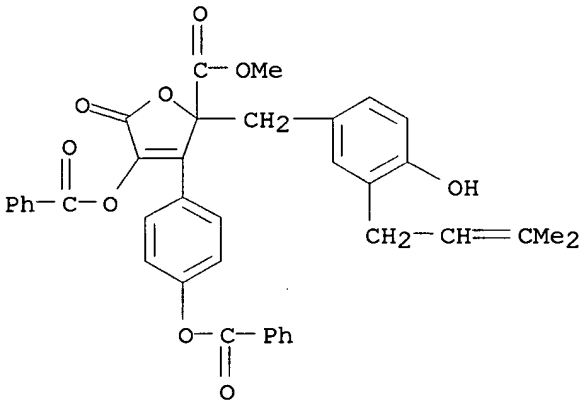
arylalkenyl, lowe[redacted]lkanoyl, tetrahydropyranyl; X1[redacted]H, CO2R2, CONHR3, CON(R4)NH[redacted]C(R5)(R5)OR6 (R2-6 = H, lower [redacted]yl, aryl, arylalkyl, cycloalkylalkyl); Y1, Z1 = (un)substituted Ph or cyclic] or their pharmaceutically acceptable salts are antitumor agents. Thus, Aspergillus terreus was cultured in a medium at 27.degree. for 72 h to obtain Me 4-hydroxy-2-[4-hydroxy-3-(3-methyl-2-butenyl)benzyl]-3-(4-hydroxyphenyl)-5-oxo-2,5-dihydrofuran-2-carboxylate (II). II was treated with methylamine to give 4-hydroxy-2-[4-hydroxy-3-(3-methyl-2-butenyl)benzyl]-3-(4-hydroxyphenyl)-5-oxo-2,5-dihydrofuran-(N-methyl)carboxamide (III). III inhibited the activity of cdc 2 kinase from mouse FM3A tumor cells with IC50 = 2.25 .mu.g/mL, indicating antitumor activity. Tablets were prepd. contg. II 1, lactose 20, corn starch 5.0 wt. parts, and Mg stearate.

IT **156003-85-9P 156003-87-1P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and antitumor activity of)

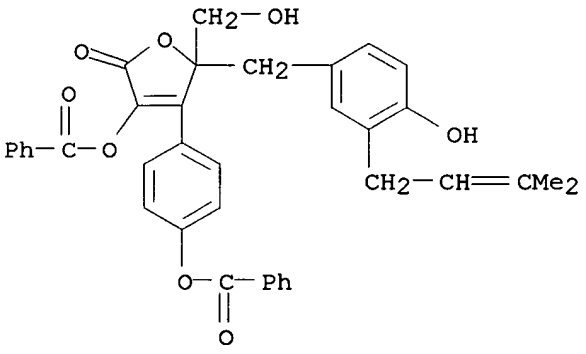
RN 156003-85-9 CA

CN 2-Furancarboxylic acid, 4-(benzoyloxy)-3-[4-(benzoyloxy)phenyl]-2,5-dihydro-2-[[4-hydroxy-3-(3-methyl-2-butenyl)phenyl]methyl]-5-oxo-, methyl ester (9CI) (CA INDEX NAME)

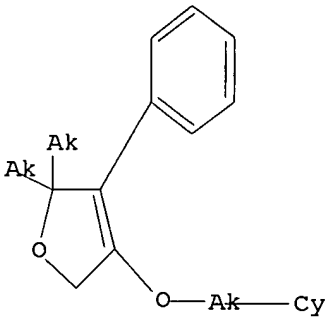


RN 156003-87-1 CA

CN 2(5H)-Furanone, 3-(benzoyloxy)-4-[4-(benzoyloxy)phenyl]-5-(hydroxymethyl)-5-[[4-hydroxy-3-(3-methyl-2-butenyl)phenyl]methyl]-(9CI) (CA INDEX NAME)



L1 HAS NO ANSWERS
L1 STR



Query